

ABSTRACT

A novel method of preparing an aqueous dispersion of non-uniform polyurethane particles which comprises (a) preparing at least two isocyanate-terminated polyurethane prepolymers having different hydrophilicities; (b) preparing a uniform mixture of said prepolymers; and (c) dispersing the mixed prepolymers in an aqueous medium. The resulting dispersion of the prepolymers may optionally be chain extended. This method enables the preparation of core-shell particles as well as particles of other morphologies, including "raspberry", interpenetrating network, "salt-and-pepper", "ice-cream cone" and particles of gradient composition. Similarly, an aqueous dispersion of two different polyurethane polymers may be obtained by first preparing at least two different isocyanate-terminated polyurethane prepolymers, preparing a uniform mixture of such prepolymers and thereafter dispersing the mixture in an aqueous medium.